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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,599	03/25/2004	Huayan Amy Wang	A35947 - 072797.0222	7239

21003 7590 03/09/2007  
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NEW YORK, NY 10112-4498

EXAMINER

DAVIS, ZACHARY A

ART UNIT	PAPER NUMBER
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2137

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

## Application No.

10/809,599

## Applicant(s)

WANG, HUAYAN AMY

## Examiner

Zachary A. Davis

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2137

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-17 and 19-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 and 19-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. A response was received on 15 December 2006. By this response, Claims 1, 3-9, 12, 13, 19, 21-27, 30, and 31 have been amended. Claims 18 and 36-39 have been canceled. No new claims have been added. Claims 1-17 and 19-35 are currently pending in the present application.

### ***Response to Arguments***

2. Applicant's arguments with respect to the rejection of Claims 1-17 and 19-35 under 35 U.S.C. 102(e) have been considered but are moot in view of the new ground(s) of rejection.

3. Applicant's arguments filed 15 December 2006 regarding the rejections under 35 U.S.C. 112, second paragraph, have been fully considered but they are not persuasive.

In reference to Claims 3-7 and 21-25, Applicant argues that the reference to "IEEE Standard 802.11" was in fact clear, and has further been clarified by the references to amendments a, b, and g of the standard (i.e. 802.11a, 802.11b, and 802.11g). The Examiner respectfully disagrees. First, the Examiner notes that amendments a, b, and g are not the only portions of the standard that would clearly be referred to in the context of wireless LAN security; for example, the standard has evolved to include amendments 802.11i and the draft of 802.11n, which both relate to

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wireless LAN security, which is probative of the Examiner's statement that because the standard is evolving, such broad identification cannot be used to properly identify the specific methods, systems, or protocols associated with the standard. The Examiner also notes that the standard could theoretically evolve to describe systems entirely unforeseen and not encompassed by the definitions as presently understood. The Examiner additionally notes that the state of the art is unpredictable, and that Applicant is not entitled to claim a future version of an existing protocol without disclosure of the specifics thereof.

Further, the Examiner notes that, although the claims have been amended to refer only to 802.11a, b, and g, it is still not clear to which version of each of these standards the claims are intended to refer. The Examiner notes that several drafts were published for each of those amendments to the 802.11 standard; further, corrections have been published for at least 802.11b. Therefore, it is not clear to which specific version the claims are intended to refer.

The Examiner additionally notes that "IEEE Standard 802.11" and each of its amendments are trademarks of the IEEE, and when a trademark is used to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See MPEP § 2173.05(u).

Therefore, for the reasons detailed above, the Examiner maintains the rejection as set forth below.

***Specification***

4. The objection to the disclosure for informalities is not withdrawn. Although the noted typographical errors have been corrected, Applicant has not clarified which version of IEEE Standard 802.11, or which date of the standard, is intended to be incorporated by reference (page 5, paragraph 0016). As noted above, each portion of the standard was subject to several drafts, and the standard as a whole has been amended; further, portions of the standard have been subject to corrections. Therefore it is still not clear which version is intended to be incorporated.

5. The amendment filed 15 December 2006 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: The amendment to paragraph 0016, page 5 of the present specification (set forth on page 2 of the present response) whereby the definition of references to IEEE Standard 802.11 is changed to be more narrow, changes the scope of the disclosure and therefore constitutes new matter. Further, in the same paragraph, the change to which amendments to IEEE Standard 802.11 are incorporated by reference also constitutes new matter.

Applicant is required to cancel the new matter in the reply to this Office Action.

***Claim Objections***

6. The objection to Claim 23 is withdrawn in light of the amendment to the claim.

The objections to Claim 36 are withdrawn in light of the cancellation of the claim.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 3-9, 12-17, and 21-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 3-7 and 21-25 each recite the limitation "IEEE Standards 802.11a/b/g". This renders the claims indefinite, because the standards have been subject to revisions, and it is not clear to which version of the standard the claimed limitation is intended to be directed. Because the standard is evolving, such broad identification of the standard cannot be used to properly identify the specific methods, systems, or protocols associated with the standard, and therefore the scope of the claims is uncertain. Further, IEEE Standards 802.11a, 802.11b, and 802.11g are trademarks of the IEEE. The trademark cannot be used to properly identify any particular material or product, and thus the scope of the claims is uncertain. See MPEP § 2173.05(u).

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Claims not specifically referred to above are rejected due to their dependence on a rejected base claim.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-17 and 19-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Macaulay, US Patent Application Publication 2003/0135762, in view of Hrastar, US Patent 7042852 (cited in the previous Office action).

In reference to Claim 1, Macaulay discloses a method for detecting unauthorized attempts to access a wireless data communication system, where the method includes forwarding one or more packets received by an access point to a computer that compares the format of the packets to a format specified by a protocol (see paragraphs 0045-0046 and 0095-0107; note also paragraphs 0032-0035 and 0042 where the wireless network is monitored), and signaling an alert if the packets deviate from the protocol specified format (see paragraphs 0049-0050). However, Macaulay does not explicitly disclose maintaining a state table storing state information for the mobile units, where the state information is also used to signal an alert.

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Hrastar discloses a method in which a state table storing state information for mobile units is stored (column 28, line 64-column 29, line 4, where the data store includes a state data store; column 29, lines 12-17), and an alert is signaled if packets deviate from the stored state information (column 30, lines 35-43). Therefore, it would have been obvious to one of ordinary skill in the art to modify the method of Macaulay to include state information, in order to enhance network security (Hrastar, column 5, lines 21-22).

In reference to Claim 2, Macaulay and Hrastar further disclose a header message portion and comparing the format of the header portion to the protocol specified format (see Macaulay, the table following paragraph 0094).

In reference to Claim 3, Macaulay and Hrastar further disclose that the protocol is IEEE Standard 802.11 (see, for example, Macaulay, paragraph 0002).

In reference to Claims 12-15 and 17, Macaulay and Hrastar further disclose monitoring for a possible denial of service attack (Macaulay, paragraph 0106) and that the packets may contain unsupported values and lengths (Macaulay, paragraph 0107, for example).

In reference to Claim 4, Macaulay and Hrastar further disclose comparing format of a frame control field (see Macaulay, the table following paragraph 0094).

In reference to Claims 5 and 6, Macaulay and Hrastar further disclose IEEE Standard 802.11 Management and Control frames (see Macaulay, the table following paragraph 0094; see also paragraph 0099).



In reference to Claims 7 and 8, Macaulay and Hrastar further disclose comparing a WEP flag value (see Macaulay, paragraph 0104).

In reference to Claim 9, Macaulay and Hrastar further disclose a protocol version (see, for example, Macaulay, paragraph 0083).

In reference to Claims 10 and 11, Macaulay and Hrastar further disclose source MAC addresses that are multicast and broadcast addresses (see Macaulay, paragraphs 0124, 0127).

In reference to Claim 16, Macaulay and Hrastar further disclose detecting a spoofed MAC address (Macaulay, paragraphs 0095, 0101).

In reference to Claim 19, Macaulay discloses a method for detecting unauthorized attempts to access a wireless data communication system, where the method includes forwarding one or more packets received by a mobile unit to a computer that compares the format of the packets to a format specified by a protocol (see paragraphs 0045-0046 and 0095-0107; note also paragraphs 0032-0035 and 0042 where the wireless network is monitored), and signaling an alert if the packets deviate from the protocol specified format (see paragraphs 0049-0050). However, Macaulay does not explicitly disclose maintaining a state table storing state information for the mobile units, where the state information is also used to signal an alert.

Hrastar discloses a method in which a state table storing state information for mobile units is stored (column 28, line 64-column 29, line 4, where the data store includes a state data store; column 29, lines 12-17), and an alert is signaled if packets

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deviate from the stored state information (column 30, lines 35-43). Therefore, it would have been obvious to one of ordinary skill in the art to modify the method of Macaulay to include state information, in order to enhance network security (Hrastar, column 5, lines 21-22).

Claims 20-35 recite limitations similar to those recited in Claims 2-17, and are rejected by a similar rationale.

### ***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary A. Davis whose telephone number is (571) 272-3870. The examiner can normally be reached on weekdays 8:30-6:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*ZAD*  
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